

**SYSTEM AND METHOD FOR SELECTING AN OPTIMAL TRANSPORT
FORMAT COMBINATION USING PROGRESSIVE SET REDUCTION**

ABSTRACT OF THE DISCLOSURE

5 A system and method is disclosed for selecting an optimal transport format combination using progressive set reduction. A base station in a third generation wireless telecommunication system assigns a transport format combination set to user equipment (UE). The system and

10 method of the invention selects a best-fit transport format combination (TFC) by progressively identifying TFC candidates in the transport format combination set that are not best-fit candidates in the UE. The system and method of the invention progressively reduces the complete TFC Set

15 to a much smaller TFC Set to be searched through for the best-fit TFC at most times in the UE. This significantly reduces the search time in the UE. The non best-fit candidates are progressively deleted until only one TFC candidate remains. The sole remaining TFC candidate is the

20 optimal best-fit TFC candidate.